disposed between the first object and the second object;

a first driving system which moves the first object in the first direction, at least a part of the first driving system being on one side of the projection system;

a second driving system which finely moves the first object while the first object is moved by the first driving system, at least a part of the second driving system being on the one side of the projection system; and

a third driving system which moves the second object in the second direction, at least a part of the third driving system being on the other side of the projection system.--

--38. An apparatus according to claim 37, wherein the first object includes a mask having a pattern area, and the second object includes a work-piece on which a pattern of the mask is transferred.--

--39. An apparatus according to claim 37, wherein said second driving system rotates said first object.--

--40. An apparatus according to claim 37, wherein said second driving system moves said first object two-dimensionally.--

28

40

--~~41.~~ An apparatus according to claim 37, wherein said first driving system includes a linear motor.--

--42. An apparatus according to claim 37, wherein said third driving system includes a linear motor.--

--43. An apparatus according to claim 37, further comprising:

a detecting system which detects a relative relationship between the first object and the second object.--

--44. An apparatus according to claim 43, wherein said relative relationship includes a positional deviation between said first object and said second object.--

43 42

--~~45~~. An apparatus according to claim ~~43~~, wherein said detecting system includes an interferometer.--

--46. An apparatus according to claim 37, further comprising:

a supporting member which supports the first object, wherein the first object is moved in the first direction by moving the supporting member with the first driving system, and the second driving system finely moves the first object relative to the supporting member.--

29

--47. An apparatus according to claim 46, wherein the second driving system finely moves the first object without a weight of the supporting member.--

--48. An apparatus according to claim 37, further comprising:

a first supporting member which is movable in the first direction; and

a second supporting member which is movable relative to the first supporting member and which supports the first object,

wherein the first object is moved in the first direction by moving the first supporting member with the first driving system, and the first object is finely moved by moving the second supporting member, with the second driving system, relative to the first supporting member.--

--49. An apparatus according to claim 48, wherein at least a part of said second driving system is provided at said first supporting member.--

--50. An apparatus according to claim 48, further comprising:

a reflective surface disposed on the second supporting member; and

an interferometer, optically connected to the

reflective surface, which is used for detecting positional information of the first object.--

--51. An apparatus according to claim 48, wherein the second driving system finely moves the second supporting member without a weight of the first supporting member.--

--52. An apparatus according to claim 37, wherein an exposure beam irradiated onto said first object defines a rectangular illumination area on said first object.--

48

--~~53~~. An apparatus according to claim 37, wherein said projection system includes a reflective and refractive optical system.--

--54. An apparatus according to claim 38, wherein said second driving system moves said first object finely before the pattern area of said mask begins to be illuminated with an exposure beam.--

50

--~~55~~. An apparatus according to claim 37, wherein the first driving system and the third driving system operate respectively to move the first object and the second object synchronously; and

the second driving system operates to correct a positional relationship between the first object and the

30

second object during a synchronous movement of the first object and the second object.--

--56. An apparatus according to claim 37, wherein said first direction and said second direction are parallel and reverse to one another.--

--57. An apparatus according to claim 56, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously in the respective first and second directions; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--58. An apparatus according to claim 37, further comprising:

a first measuring device which detects positional information of the first object; and

a second measuring device which detects positional information of the second object.--

--59. An apparatus according to claim 58, wherein the first driving system and the third driving system operate separately to move the first object and the second

31

object synchronously based on the positional information detected by the first and second measuring devices; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--60. An apparatus according to claim 37, wherein the projection system has a projection magnification which includes reduction magnification.--

--61. An apparatus according to claim 60, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously based on the reduction magnification of the projection system; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--62. An apparatus according to claim 37, wherein a speed of movement of ~~said~~ first object and a speed of movement of said second object are different from each other.--

--63. An apparatus according to claim 62, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously, the first object being moved at a first speed and the second object being moved at a second speed; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

a1

--64. An apparatus according to claim 63, wherein the first speed is faster than the second speed.--

--65. An apparatus according to claim 37, wherein said first object and said second object are moved under respective first and second speed controls which are different from each other.--

--66. An apparatus according to claim 65, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously, the first object being moved under the first speed control and the second object being moved under the second speed control; and

the second driving system operates to correct a positional relationship between the first object and the

second object during a synchronous movement of the first object and the second object.--

--67. An apparatus according to claim 66, wherein when said first object is accelerated under said first speed control, said second object moves at a constant speed under said second speed control.--

--68. A scanning exposure method in which a first object is moved in a first direction and a second object is moved in a second direction for a scanning exposure, the method comprising:

moving a first object in the first direction by using a first driving system;

finely shifting the first object by using a second driving system while the first object is moved by the first driving system; and

moving a second object in the second direction by using a third driving system.--

--~~69~~. A method according to claim ~~68~~, wherein the first object includes a mask having a pattern area, and the second object includes a work-piece on which a pattern of the mask is transferred.--

--70. A method according to claim 68, wherein said second driving system rotates said first object.--

--71. A method according to claim 68, wherein said second driving system shifts said first object two-dimensionally.--

--72. A method according to claim ~~68~~ 55, wherein said first driving system includes a linear motor.--

--73. A method according to claim 68, wherein said third driving system includes a linear motor.--

--74. A method according to claim ~~68~~ 55, further comprising:

detecting a relative relationship between the first object and the second object.--

--75. A method according to claim 74, wherein said relative relationship includes a positional deviation between said first object and said second object.--

--76. A method according to claim ~~74~~ 60, wherein said relative relationship is detected by an interferometer.--

--77. A method according to claim 68, wherein the first driving system moves a supporting member, which

supports the first object, in the first direction, and

the first object is moved in the first direction by moving the supporting member with the first driving system, and the second driving system finely shifts the first object relative to the supporting member.--

--78. A method according to claim 77, wherein the second driving system finely shifts the first object without a weight of the supporting member.--

--79. A method according to claim 68, wherein the first driving system moves a first supporting member in the first direction; and

the second driving system finely shifts a second supporting member, which supports the first object, relative to the first supporting member,

wherein the first object is moved in the first direction by moving the first supporting member with the first driving system and is finely shifted by moving the second supporting member with the second driving system.--

--80. A method according to claim 79, wherein at least a part of said second driving system is provided at said first supporting member.--

--81. A method according to claim 79, wherein the second driving system finely shifts the second

supporting member without a weight of the first supporting member.--

--82. A method according to claim 68, wherein an exposure beam irradiated onto said first object defines a rectangular illumination area on said first object.--

--83. A method according to claim 69, wherein said second driving system shifts said first object finely before the pattern area of said mask begins to be illuminated with an exposure beam.--

--~~84~~. A method according to claim ~~68~~, wherein the first driving system and the third driving system operate respectively to move the first object and the second object synchronously; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--85. A method according to claim 68, wherein said first direction and said second direction are parallel and reverse to one another.--

--86. A method according to claim 85, wherein the first driving system and the third driving system

operate separately to move the first object and the second object synchronously in the respective first and second directions; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--87. A method according to claim 68, further comprising:

measuring positional information of the first object; and

measuring positional information of the second object.--

--88. A method according to claim 87, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously based on the respective detected positional information of the first and second objects; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--89. A method according to claim 68, wherein the first driving system and the third driving system

operate separately to move the first object and the second object synchronously based on a projection magnification of a projection system which is used for the scanning exposure, the projection magnification including reduction magnification; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

a1

--90. A method according to claim 68, wherein a speed of movement of said first object and a speed of movement of said second object are different from each other.--

--91. A method according to claim 90, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously, the first object being moved at a first speed and the second object being moved at a second speed; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--92. A method according to claim 91, wherein the first speed is faster than the second speed.--

--93. A method according to claim 68, wherein said first object and said second object are moved under respective first and second speed controls which are different from each other.--

--94. A method according to claim 93, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously, the first object being moved under the first speed control and the second object being moved under the second speed control; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--95. A method according to claim 94, wherein when said first object is accelerated under said first speed control, said second object moves at a constant speed under said second speed control.--

--96. A circuitry element produced with use of the method as defined in claim 68.--

--97. A method for making a scanning exposure apparatus in which a first object is moved in a first direction and a second object is moved in a second direction for a scanning exposure, the method comprising:

providing a projection system for the scanning exposure, which is disposed between the first object and the second object;

providing a first driving system which moves the first object in the first direction, at least a part of the first driving system being on one side of the projection system;

providing a second driving system which finely moves the first object while the first object is moved by the first driving system, at least a part of the second driving system being on the one side of the projection system; and

providing a third driving system which moves the second object in the second direction, at least a part of the third driving system being on the other side of the projection system.--

--98. A method according to claim ~~97~~, wherein the first object includes a mask having a pattern area, and the second object includes a work-piece on which a pattern of the mask is transferred.--

--99. A method according to claim 97, wherein said second driving system rotates said first object.--

--100. A method according to claim 97, wherein said second driving system moves said first object two-dimensionally.--

--~~101~~. A method according to claim ~~97~~, wherein said first driving system includes a linear motor.--

--102. A method according to claim 97, wherein said third driving system includes a linear motor.--

--103. A method according to claim 97, further comprising:

providing a detecting system which detects a relative relationship between the first object and the second object.--

--104. A method according to claim 103, wherein said relative relationship includes a positional deviation between said first object and said second object.--

--~~105~~. A method according to claim ~~103~~, wherein said detecting system includes an interferometer.--

--106. A method according to claim 97, further comprising:

providing a supporting member which supports the first

object,

wherein the first object is moved in the first direction by moving the supporting member with the first driving system, and the second driving system finely moves the first object relative to the supporting member.--

--107. A method according to claim 106, wherein the second driving system finely moves the first object without a weight of the supporting member.--

--108. A method according to claim 97, further comprising:

providing a first supporting member which is movable in the first direction; and

providing a second supporting member which is movable relative to the first supporting member and which supports the first object,

wherein the first object is moved in the first direction by moving the first supporting member with the first driving system and is finely moved relative to the first supporting member by moving the second supporting member with the second driving system.--

--109. A method according to claim 108, wherein at least a part of said second driving system is provided at said first supporting member.--

--110. A method according to claim 108, further comprising:

providing a reflective surface disposed on the second supporting member; and

providing an interferometer, optically connected to the reflective surface, which is used for detecting positional information of the first object.--

--111. A method according to claim 108, wherein the second driving system finely moves the second supporting member without a weight of the first supporting member.--

--112. A method according to claim 97, wherein an exposure beam irradiated onto said first object defines a rectangular illumination area on said first object.--

86 75

--~~113.~~ A method according to claim ~~97~~, wherein said projection system includes a reflective and refractive optical system.--

--114. A method according to claim 98, wherein said second driving system moves said first object finely before the pattern area of said mask begins to be illuminated with an exposure beam.--

88 75

--~~115.~~ A method according to claim ~~97~~, wherein the first driving system and the third driving system

operate respectively to move the first object and the second object synchronously; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--116. A method according to claim 97, wherein said first direction and said second direction are parallel and reverse to one another.--

--117. A method according to claim 116, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously in the respective first and second directions; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--118. A method according to claim 97, further comprising:

providing a first measuring device which detects positional information of the first object; and

providing a second measuring device which detects positional information of the second object.--

38

--119. A method according to claim 118, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously based on the respective detected positional information detected by the first and second measuring devices; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

A1

--120. A method according to claim 97, wherein the projection system has a projection magnification which includes reduction magnification.--

--121. A method according to claim 120, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously based on the reduction magnification of the projection system; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--122. A method according to claim 97, wherein a speed of movement of said first object and a speed of movement of said second object are different from each other.--

--123. A method according to claim 122, wherein the first driving system and the third driving system operate separately to move the first object and the second object synchronously, the first object being moved at a first speed and the second object being moved at a second speed; and

the second driving system operates to correct a positional relationship between the first object and the second object during a synchronous movement of the first object and the second object.--

--124. A method according to claim 123, wherein the first speed is faster than the second speed.--

--125. A method according to claim 97, wherein said first object and said second object are moved under respective first and second speed controls which are different from each other.--

--126. A method according to claim 125, wherein the first driving system and the third driving system